Memory

Name

Institution

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Memory is a term that is defined in the field of psychology, and it means the ability of a person to acquire information, store the information and recall it later when it is required. Memory is termed as long-term memory or short term memory (Grison, et al., 2017). The essay will discuss the long term memory, short term memory, how the memory of a person works and the processes of storing information known as encoding, storage, and retrieval.

**Long term Memory**

Long term memory is defined as the storing of data for an extended time in which a person can remember things that happen in hours or even in decades. One of the issues about long-term memory is that it is outside the conscious mind of an individual. The information is stored and used when needed despite being recorded outside the conscious mind (Grison, et al., 2017). Long term memory can also be the memory that is frequently accessed and hence become stronger and can be easily accessed. Some identified factors that influence how long information sustains long-term memory and one of the elements is how the data is encoded.

Also, the long-term memory is controlled by the frequency in which the memory is accessed which improves the duration and the strength of memory. The two types of long-term memory are explicit and implicit memories. Explicit memories are the ones that are available during consciousness, and implicit memories are classified as unconscious (Grison, et al., 2017). These types of memories are then subdivided into three categories that include episodic memory, semantic memory, and procedural memory. Procedural memory focuses on understanding how to do things. Semantic memory focuses on keeping information about general knowledge about the world and the episodic memory stores info that occur in someone’s life.

**Short-term Memory**

The other type of memory is the short-term memory which is also referred to as primary or active memory. Short-term memory is the information a person is conscious about during encoding. The short-term memory should be actively maintained or rehearsed; otherwise, it disappears within seconds. The short-term memory is said to be limited in dealing with figures and events. Information in short-term memory can last for duration of twenty to thirty seconds and for this to happen, the information should be maintained actively (Grison, et al., 2017). The period of the short-term memory can be managed through rehearsing strategies such as saying the information mentally and loudly. Short-term memory is said to be prone to interference since new information to short-term memory to replace the old material (Grison, et al., 2017). Short term memory is changeable to long term memory by using the technique of rehearsing. It has been proved scientifically that repeating the information from time to time improves the short-term memory to long term memory.

**How the Memory Works**

It is essential for one to understand how memory work and how it can be improved. The nerves cells in the brain known as neurons are the ones that communicate through synaptic connections, and they communicate through transmitters. Once the neurons receive stimulation, they open a communication line which results in the creation of short-term or long-term memory. The long term potentiation is the result of strengthening the activated synopses through the neurons. Through long term, potentiation is used in psychology as a mechanism to explain how memory works since it can alter the strength of the connections of brain cells (Miller, 2011). Working of the memory depends on the maintenance of the relationship between synaptic connections. Through long term potentiation, the brain can upload, and process information at a higher rate hence explaining the memories of an individual. According to Griffith, the brain is a plastic organ that can modify and reconfigure itself the communication between synapses and pathways how the mind works. Loss of long term potentiation can result in impairment and cognitive loss that which shows the reason for short-term memory.

**Stages of Memory**

Encoding

Three steps are involved in memory, and they include encoding, storage, and retrieval. Encoding means changing of information so that it can cope in the system and it is done in three ways which are semantic, acoustic and visual (Miller, 2011). According to scientific evidence, coding in short-term memory is acoustic which is repeating information through sound. Semantic coding is the principle of the coding system involved in long-term memory.

Storage

Memory storage is the second process that is involved in memory which means storage of information determined by the duration of information storage, kind of information and the location the information is stored (Miller, 2011). Research shows that adults have the capability of storing five to nine items in short memory and capacity according to Miller's study is 7 (plus or minus 2), and the size of storage in Long term memory is unlimited.

Retrieval

The process of recovery is obtaining information from the storage in the memory. Retrieval is varied depending on the type of memory (Miller, 2011). For the short-term memory, the data is stored and retrieved sequentially while in long term memory is storage and retrieval are through association. Organization of information is considered as a factor that helps in recovery.

These three processes contribute to understanding how memory works. The three steps interconnect with each other, and one step depends on the other to function correctly. If the process of encoding is affected, then storage is affected and so is the retrieval of information. Encoding can be affected by a distraction which determines short-term or long term memory. Also, the information may be unavailable for retrieval when needed.

References

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